Energy and Minerals

Energy Overview

While crude oil production declined slightly in 2001, natural gas production continued to increase. The coal industry in Utah has always enjoyed healthy and profitable growth, and is expected to be more successful in the future in the wake of rising coal prices. Still, coal employment has fallen from 2,100 in 1997 to under 1,600 in 2001.

2000 Summary and Review

Petroleum and Natural Gas. Utah production of crude oil declined slightly in 2001 and is estimated to be 15 million barrels, or roughly 3% below the previous year. With crude oil wellhead prices averaging \$23.50 per barrel, well permits, well completions, footage drilled, and drilling success rates increased in 2001. The top ten crude oil producers in Utah account for over 90% of production. Crude oil production uses technology, such as enhanced oil recovery, as a remedy to slow production declines.

Natural gas production continues to look to new sources such as coalbed methane. Coalbed methane development remains a promising source for natural gas production, and major coalbed methane operations exist in Carbon and Emery Counties. Natural gas production statewide was up somewhat in 2001 from the 2000 level as new production from coalbed methane helped curb Utah's production decline. Coalbed methane projects will boost statewide production over the next few years. The yearly average price for natural gas was \$3.69 per thousand cubic feet, with the price much higher at the beginning of the year.

The demand for petroleum products in Utah is increasing faster than population, which makes the Utah market attractive for out-of-state sources. Although Salt Lake City petroleum refineries have operated close to capacity for several years, they have also been successful in increasing their output of refined products to meet the growing Utah market. The expansion of the refinery in Sinclair, Wyoming, also plays an important role in satisfying the Wasatch Front market.

Electric Utilities. Utah electric power generation decreased for the first time in a number of years. Coal-fired generation remains at 94% of total electricity production, with remaining generation shared among hydroelectric (1.7%), oil/gas (4.1%), and geothermal sources (0.4%).

Electricity demand in Utah maintained its steep upward trend in 2001, with an increase of 1.6% over the 2000 total. However, electric consumption in the residential and commercial sectors was up 6-7%, while industrial consumption was down 7%. In all sectors, electricity prices in 2001 were higher than the previous year, after falling for several years.

Coal. Utah coal production, which had been on the rise from 21 million tons in 1992 to 27.1 million tons in 1996, has settled around 26.5 million tons per year for the past five years. Employment decreased from 2,091 in 1997 to 1,950 in 1998, 1,843 in 1999, 1,672 in 2000, and to 1,595 in 2001. Coal production from Emery County decreased, while Carbon and Sevier registered higher levels of production. Emery County's decrease in production was mainly due to the close of EnergyWest's Trail Mountain mine. The increased production by Carbon was due to increased production by the Westridge and Dugout Canyon mines, and

the increased production from Sevier County was due to a higher level of production from the Sufco mine. About 71.4% of total production came from Federal land, while 16.2% came from state land, and 12.5% from fee land. The value of coal produced surpassed \$467 million.

In 2001, Utah produced 191,000 tons of coal less than total from the previous year of 26.920 million tons. The Wasatch Plateau coal field, with production of 21.7 million tons, was the major coal-producing field in central Utah. The other coal field, Book Cliffs, produced 5.0 million tons. Wasatch Plateau coal field produced less than the 2000 level while the Book Cliffs surpassed the previous year by 1.2 million tons, mostly due to increased production by Westridge and Dugout Canyon mines. Emery County produced the most coal in Utah (14.1 million tons). Sevier County's production of 7.0 million tons was much higher than the previous year's production level, and Carbon's production of 5.6 million tons was 1.3 million tons below the 4.3 million tons production of 2000.

Electric utilities in Utah consumed lower levels than the previous four years. Major markets for Utah coal were Utah (13.2 million tons), followed by, Nevada (3.8 million tons), California (3.4 million tons), the Pacific Rim Countries of Japan, Korea, and Taiwan (2.7 million tons), Tennessee (1.7 million tons), and Illinois (1.0 million tons).

The Outlook for 2002

Petroleum and Natural Gas. Crude oil production is expected to decline by 3 to 5% in 2002. However, the high price of crude oil may dampen the decline in production to less than 3%. In 2001 crude oil wellhead prices declined from \$28 to \$20 a barrel. Average crude oil prices in 2002 should stabilize in the \$17-20 range. After several years of variable total natural gas production, gas production in 2002 is again expected to increase and could approach the 300 billion cubic foot level, especially if natural gas prices stay high. Natural gas wellhead prices, already near a 15-year high, should average in the \$2.80-\$3.00 range per thousand cubic feet for the next year.

Electric Utilities. Strong economic growth will support higher electricity demand through 2002 and into the next decade. Even though Utah's economy has slowed, its continued expansion should once again push electricity consumption higher. Overall growth and demand should remain at or above 5% for 2002, with residential and commercial consumption showing strong growth. There has been speculation that the growth in demand could adversely affect the electricity market in a couple of ways. First, sustained demand growth puts upward pressure on electric prices. Second, there is a growing shortage in available capacity throughout the western electric grid. These factors could cause prices to increase or affect electricity reliability.

Coal. Coal production in Utah is forecasted to reach 26.9 million tons in 2002. Productivity should increase by about 1.5%. Coal prices, which turned around in 2001, should increase and show more gain in 2002.

Significant Issues

Petroleum and Natural Gas. Crude oil wellhead prices were remarkably low throughout 1998 and early 1999. Consequently, drilling and exploration decreased, which resulted in some lost oil production. Decreases in production hurt Utah's oil producing counties economically and also limited the in-state supply of oil to refiners. Even though prices for crude oil rebounded in 1999 and 2000 and encouraged new drilling,

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wellhead prices at the end of 2001 are falling once again. The lag time between bringing new supply on-line and final delivery to end users is significant. The industry is now recovering from the low prices and reduced drilling activity spurred by those events in 1998 and early 1999.

Electric Utilities. Electric industry analysts continue to examine federal and state actions on the issues of restructuring and adequacy of supply. In Utah, the Deregulation and Customer Choice Task Force is proceeding with its review of restructuring and is expected to assess developments in other states before issuing a recommendation to the legislature. Other issues facing electric utilities concern the western power grid, including reliability and the ability of supply to meet demand. Regarding reliability, the western interstate grid structure is aging and in need of renovation. Without improvements, the ability to deliver electric power on a continuous basis is called into question. Utah is experiencing rates of consumption that are higher than the growth in population. Utah is fortunate to be able to generate enough electricity to supply the state, and export the remainder to California. However, the portion that Utah's electric utilities sell to out-of-state markets is contractual. As a result, the ability to meet short-term demand surges in Utah is squeezed. This was evidenced during the past fall when PacifiCorp and a number of municipal electric utilities bought power on the wholesale market because they could not meet demand. Purchasing power on the wholesale market is more expensive, and the implication is that rates in some areas will rise. However, on a statewide basis for all customer classes, rates have been falling over the last few years, and Utah remains one of the least-cost states despite its high rate of growth.

Coal. Coal is now by far the least expensive fuel to consume for generation of electricity. During 2001, the price of crude oil and most refined products were significantly lower than the previous year. The spot price of natural gas was much lower and yet the price of coal increased to some extent.

The expectation that the Hague Conference on the International Climate Treaty would produce positive results did not materialize despite an eleventh hour effort by John Prescott, the UK Deputy Prime minister. The 1997 Kyoto Accord was finally ratified by all the previous participants with the exception of the United States.

This brings a commitment by the industrialized nations of the world to reduce their emissions to a level below that of 1990. The United States will eventually reconcile itself with the other industrialized countries. Until then, it appears that the consumption of coal will increase unabated.

The second phase of Clean Air Act Amendments of 1990, which went into effect at the beginning of the last year, forced the creation of a bigger market for high Btu, low-sulfur coal found in Utah. Utah coal should be in strong demand, and this should affect the overall price of coal. The new regulation to control mercury emissions will go into effect in 2004. This is also to the benefit of Utah coal as it contains a much lower percentage of mercury than other U.S. coal.

Productivity continues to rise in the Utah coal industry. In 2001, the productivity of Utah coal miners rose to 7.0 tons per miner-hour. Utah coal production should continue to rise marginally for the foreseeable future, and coal prices should continue to increase.

Minerals Overview

The estimated value of mineral production in Utah was \$1.92 billion in 2001, marginally higher than the total for 2000, despite a year of continued low metal prices and a faltering national economy. In decreasing order of value, contributions from the major industry segments are: base metals-\$703 million, industrial minerals-\$514 million. coal-\$469 million, and precious metals-\$236 million. Overall, mineral production remains at near-record levels despite continued low baseand precious-metal prices. In 2001, 75 Large Mines (including coal) were active in Utah compared to 85 mines in 2000. Through mid-November 2001, the Utah Division of Oil, Gas and Mining received six new Large Mine permit applications (five acres and larger disturbance) and 32 new Small Mine permit applications (less than five acres disturbance). All of the Large Mine applications were made to change from Small Mine to Large Mine permit status. Nationally, Utah ranked 9th in the value of nonfuel mineral production and 12th in coal production in 2000, and should retain similar rankings in 2001. The state contributes about 3.5% of the U.S. total value of nonfuel minerals production.

Operator surveys indicate that both precious-metal and base-metal production for 2002 will decrease moderately. Industrial-mineral production should remain steady, although several operators predict a reduction in demand for their products. Industrial-mineral production is closely linked to regional and local construction and population growth, and could be affected by the completion of several major construction projects in the Salt Lake Valley. Low metal prices have significantly reduced exploration activities and delayed the opening of several Small base- and precious-metal mines.

Significant issues that will impact the future of the minerals industry in Utah are the limited availability of public lands open for mineral exploration and development, state and federal regulations that dampen industry's willingness to develop new resources, the negative public perception of the mining industry, and difficulties and delays in obtaining required permits.

2001 Summary

The value of Utah's mineral production in 2001 is estimated to be \$1.92 billion, an increase of just \$5.2 million from 2000. Estimated contributions from each of the major industry segments are:

- base metals, \$703 million (37% of total);
- industrial minerals, \$514 million (27% of total);
- ▶ coal, \$469 million (24% of total); and
- precious metals, \$236 million (12% of total).

Compared to 2000, the 2001 values changed as follows: (1) base metals decreased \$46 million, (2) industrial minerals increased \$14 million, (3) coal increased \$13 million, and (4) precious metals increased \$24 million.

Base Metals

Base-metal production was the largest contributor to the value of minerals produced in 2001. The value of base metals decreased approximately \$46 million compared to 2000, largely due to lower copper and magnesium metal prices; copper production was actually higher in 2001. In descending order of value, base metals produced in Utah are: copper, magnesium, molybdenum, and beryllium. These metals are produced by Kennecott Utah Copper Company (copper and

molybdenum) from one mine in Salt Lake County, by Brush Resources, Inc. (beryllium) from two mines in Juab County, and by Magnesium Corporation of America (magnesium) from its electrolytic facility using brines from the Great Salt Lake. The facility is located at Rowley in Tooele County.

Industrial Minerals

Industrial-minerals production (including sand and gravel) was the second-largest contributor to the value of minerals produced in 2001, and accounted for approximately 27% of the total value of minerals produced. In comparison to the relatively few (6) Large Mines and facilities that produce base and precious metals, there are 56 active Large Mines and brine processing facilities that produce a myriad of industrial-mineral commodities and products. The above number of mines does not include the numerous sand and gravel operations that are spread throughout every county in the state. The estimated value of industrial minerals increased approximately \$14 million compared to 2000, due primarily to increases in the production of crushed stone, hydrated lime and quicklime, and several brine products. Relatively stable commodity prices were common for most industrial mineral products.

The five most important commodities or groups of commodities produced, in descending order of value, are: (1) salines, including salt, potash (potassium chloride), sulfate of potash, and magnesium chloride; (2) Portland cement; (3) sand and gravel, crushed stone, and silica; (4) lime, including quicklime and hydrated lime; and (5) phosphate. Together, these commodities contribute nearly 90% of the total value of industrial minerals.

Coal

Almost 27 million tons of high-Btu, low-sulfur coal valued at \$469 million was produced from 13 mines located in Carbon, Emery, and Sevier Counties. Coal production was the third largest contributor to the value of minerals produced in 2001, and accounted for 24% of the total value of minerals produced. The value of coal produced increased slightly more than \$13 million compared to 2000.

Precious Metals

Precious metals valued at \$236 million were produced from three Large Mines in 2001 and accounted for approximately 12% of the total value of minerals produced. The value of precious-metal production was attributable to gold (90%) and silver (10%). The value of precious-metal production increased approximately \$24 million compared to 2000, due to moderate increases in the production of both gold and silver, although prices for both metals were lower than the previous year. The three main producers of precious metals are Kennecott's Bingham Canyon mine, which recovers both silver and gold as by-produces; Kennecott's Barneys Canyon mine, which is a primary gold producer; and Chief Gold Mine's newly reopened Trixie mine, which produces a small amount of gold and silver. The Bingham Canyon and Barneys Canyon mines are located in western Salt Lake County, and the Trixie mine is located in southwestern Utah County.

Active Mines and New Mine Permits

Seventy-five Large Mines (excluding sand and gravel) were active in 2001. These mines, grouped by industry segment, are: base metals - 4; precious metals - 2; coal - 13; and industrial minerals (including gems, geodes, and fossils) - 56. The Division of Oil, Gas and Mining recorded production from one hundred twenty Small Mines in 2000 (latest data

available). These mines are grouped as follows: base metals - 1; precious metals - 11; industrial minerals - 85; and gemstones, fossils, and geodes - 23.

Through mid-November 2001, the Utah Division of Oil, Gas and Mining received six new Large Mine permit applications (five acres and larger disturbance) and 32 new Small Mine permit applications (less than five acres disturbance). All of the Large Mine applications were made to change from Small Mine to Large Mine permit status. These numbers represent a decrease of six Large Mine permit applications and 24 Small Mine permit applications compared to 2000. New Large Mine permits include four industrial mineral and two precious metal operations. New Small Mine permits are grouped as follows: industrial minerals - 20, gems and fossils - 10, precious metals - 1, and mill sites - 1.

Nonfuel Mineral Production Trends

According to preliminary data from the U.S. Geological Survey, the value of Utah's nonfuel mineral production in 2000 was \$1.45 billion, an increase of 15% compared to 1999. Nationally, Utah ranks 9th in the value of nonfuel mineral production and accounted for approximately 3.5% of the U.S. total. Between 1990 and 2000, the value of nonfuel mineral production in Utah has ranged from a low of \$1.18 billion in 1991, to a high of \$1.85 billion in 1995. The Utah Geological Survey's estimate for the value of nonfuel mineral production for 2001 is \$1.45 billion, \$7.9 million less than its estimate for 2000.

The number of exploration permits issued is on track to be significantly lower in 2001 than in 2000. Only 12 Notices of Intent to explore on public lands were filed with the Utah Division of Oil, Gas and Mining through mid-November 2001, compared to 15 for all of 2000, and 26 for 1999.

2002 Outlook

The value of mineral production in Utah is expected to decrease moderately in 2002. Operator surveys indicate that in 2002 both precious-metal and base-metal production will be lower, coupled with continued low metal prices. The reopening of one Small precious-metal mine in 2000 will partially offset the loss of precious-metal production due to the impending closure of the Barneys Canyon gold mine. Industrial-mineral values will also trend lower with lower sand and gravel production partially offset by an increase in the production of crushed stone. The production of cement and lime products is expected to remain nearly the same as the current year. As base- and precious-metal prices continue to remain low, exploration for both base and precious metals is also expected to remain low for the foreseeable future.

Significant Issues Affecting Utah's Mining Industry

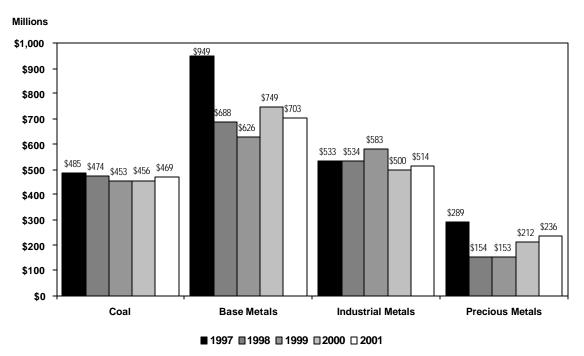
Significant issues that will affect the long-term viability of Utah's mineral industry are: (1) the limited availability of public lands open for mineral exploration due to federal withdrawals such as Wilderness Study Areas, and the U.S. Forest Service's roadless initiative, (2) the negative public perception of the mining industry, and (3) difficulty and delays in acquiring required permits.

Conclusion

Utah's mineral industry continues to maintain a relatively high valuation, despite continued low metal prices, and some slowdown in coal and

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industrial minerals production in 2001; base- and precious-metal production actually increased. At this time, there are few indications that the metal markets will improve significantly in the coming year. The outlook for 2002 is for a moderately lower valuation. Precious-metal values will decline in 2002, due to a decrease in production at two of Utah's precious-metal operations. Industrial-mineral values should remain about the same as in 2001, although an anticipated slowdown in several commodities might affect overall values. The number of producing Large Mines continues to decrease, which reduces the state's mineral production base, and the level of mineral exploration continues to decline. Utah, which ranked 9th in the nation in the value of nonfuel mineral production and 12th in coal production in 2000, should retain similar rankings in 2001. Significant issues that will affect the long-term viability of Utah's mineral industry are the limited availability of public lands open for mineral exploration, the negative public perception of the mining industry, and difficulty in acquiring required permits.



Source: Utah Geological Survey

Figure 55 Value of Nonfuel Minerals



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Table 74
Supply and Disposition of Crude Oil in Utah (Thousand Barrels)

		Supply	Disposition						
Year	Field Production	Colorado Imports	Wyoming Imports	Canadian Imports	Utah Crude Exports	Refinery Receipts	Refinery Inputs	Refinery Stocks	
1980	24,979	15,846	12,233	-	8,232	45,516	45,599	665	
1981	24,309	14,931	11,724	-	7,866	43,700	42,673	762	
1982	23,595	13,911	12,033	-	7,826	41,246	40,368	614	
1983	31,045	14,696	7,283	-	8,316	43,615	43,185	632	
1984	38,054	13,045	6,195	-	13,616	43,672	43,746	607	
1985	41,144	13,107	6,827	-	14,597	45,549	45,021	695	
1986	39,245	12,567	7,574	-	15,721	45,132	45,034	559	
1987	35,835	13,246	7,454	-	12,137	45,664	44,483	612	
1988	33,350	12,783	14,739	-	8,411	48,882	47,618	599	
1989	28,512	13,861	18,380	-	6,179	46,775	46,767	609	
1990	27,693	14,494	18,844	-	7,725	49,104	48,985	728	
1991	25,930	14,423	20,113	-	8,961	48,647	48,852	513	
1992	24,075	13,262	21,949	-	6,901	50,079	49,776	645	
1993	21,819	11,575	22,279	-	7,758	48,554	48,307	691	
1994	20,661	10,480	26,227	-	8,048	48,802	48,506	767	
1995	19,988	9,929	24,916	-	7,861	46,695	46,666	767	
1996	19,504	9,857	24,905	175	7,713	46,126	45,766	590	
1997	19,585	8,565	28,191	525	7,819	48,492	48,486	654	
1998	19,198	8,161	28,414	2,200	7,785	49,539	49,023	702	
1999	16,255	7,335	28,461	6,400	34,861	7,180	51,157	720	
2000	15,500	7,300	25,300	7,975	33,275	6,786	49,178	600	
2001(e)	15,000	7,000	26,500	8,500	35,000	6,500	50,000	550	

e = estimate

Source: Center for Policy and Planning

Table 75
Supply and Disposition of Petroleum Products in Utah (Thousand Barrels)

		Supply		Consumption by Product								
	Refined		Refinery	Motor	Jet	Distillate	AII					
Year	in Utah	Imports	Stocks	Gasoline	Fuel	Fuel	Other	Total	Exports			
1980	40,340	7,474	2,237	15,534	2,637	8,401	9,542	36,113	22,136			
1981	46,994	8,755	2,137	15,549	2,424	7,098	5,839	30,910	23,630			
1982	43,824	10,339	2,209	15,793	2,801	6,438	5,683	30,715	22,119			
1983	52,019	8,099	1,851	15,954	3,284	6,387	6,796	32,421	25,298			
1984	47,968	10,057	1,982	16,151	3,413	6,894	6,516	32,974	24,121			
1985	51,276	9,392	1,915	16,240	3,808	5,941	6,122	32,111	23,365			
1986	51,822	8,026	1,863	17,541	4,335	7,312	5,720	34,907	19,983			
1987	52,345	8,321	1,581	17,623	4,969	6,768	6,247	35,607	20,719			
1988	55,742	8,616	1,808	18,148	4,977	7,328	5,965	36,418	23,327			
1989	54,384	9,375	2,190	17,311	5,095	6,179	6,603	35,188	22,326			
1990	57,349	11,998	1,733	16,724	5,281	7,339	5,920	35,264	24,969			
1991	57,446	11,359	1,823	17,395	5,917	7,789	6,584	37,685	26,544			
1992	57,388	10,534	1,619	17,905	5,607	8,062	5,729	37,303	25,642			
1993	57,597	10,707	1,692	18,837	5,518	8,000	5,649	38,004	23,691			
1994	59,458	11,555	2,153	19,433	5,270	8,401	5,925	39,028	25,265			
1995	57,363	12,289	2,015	20,771	5,658	9,164	6,824	42,417	24,205			
1996	58,852	12,692	1,724	21,170	6,303	9,921	8,412	45,806	24,561			
1997	59,849	12,949	1,505	22,024	6,277	11,260	6,252	45,813	26,248			
1998	61,424	12,842	1,655	22,735	6,373	11,191	5,946	46,245	26,527			
1999	62,744	14,509	1,687	23,141	7,443	10,576	6,441	47,601	26,756			
2000	58,030	14,568	1,568	23,558	7,517	10,682	6,796	48,553	27,142			
2001(e)	59,190	15,534	1,537	23,982	7,593	10,895	7,055	49,524	27,413			

e = estimate

Source: Center for Policy and Planning

Table 76
Supply and Disposition of Natural Gas in Utah (Million Cubic Feet)

		Supply		Consumption by End Use									
Year	Gross Production	Marketed Production	Actual Sales	Residential	Commercial	Industrial	Electric Utilities	Lease & Plant	Pipeline	Total			
1980	87,766	47,857	na	40,578	17,391	43,545	5,133	7,594	851	115,092			
1981	90,936	58,865	na	38,592	16,540	42,779	3,087	511	721	102,230			
1982	100,628	56,368	na	47,452	20,336	39,804	3,023	5,965	1,126	117,706			
1983	96,933	54,700	na	44,047	18,877	40,246	1,259	4,538	1,218	110,185			
1984	183,062	73,154	na	44,246	18,962	42,709	271	8,375	1,015	115,578			
1985	208,803	78,906	na	47,062	20,170	37,448	235	9,001	1,201	115,117			
1986	239,411	91,036	na	13,603	18,687	28,264	230	13,289	1,102	75,175			
1987	262,045	96,360	na	41,536	14,811	23,884	263	17,671	822	98,987			
1988	278,463	101,925	na	42,241	17,911	30,365	196	16,889	1,362	108,964			
1989	278,081	120,089	na	45,168	16,522	33,963	636	16,211	1,037	113,537			
1990	319,632	145,875	63,336	43,424	16,220	35,502	907	19,719	875	116,648			
1991	323,660	144,817	65,288	50,572	19,276	43,120	5,190	13,738	864	132,766			
1992	314,275	171,293	94,725	44,701	16,584	40,878	6,576	12,611	1,284	122,649			
1993	336,183	225,401	137,864	51,779	22,588	42,301	6,305	12,526	2,513	138,044			
1994	347,019	270,858	160,967	48,922	26,501	36,618	8,900	13,273	2,807	137,073			
1995	303,233	241,290	164,059	48,975	26,825	42,373	8,707	27,012	2,831	156,824			
1996	281,208	250,767	179,943	54,344	29,543	42,213	3,428	27,119	3,601	160,371			
1997	274,920	257,139	183,427	58,108	31,129	44,162	4,078	24,619	2,935	165,159			
1998	297,265	277,340	201,416	56,843	30,955	45,501	5,945	27,466	2,788	169,634			
1999	276,967	262,614	205,036	55,474	30,361	40,859	6,481	23,810	2,561	159,675			
2000	282,506	267,866	217,819	55,626	31,282	39,378	10,544	24,670	2,674	164,319			
2001(e)	296,631	278,581	228,710	61,467	34,348	33,471	12,653	25,904	2,808	170,650			

e = estimate na = not available

Source: Center for Policy and Planning

Table 77
Supply and Disposition of Electricity in Utah (Gigawatthours)

		Net Gener	ation by Fuel T	Consumption by End Use						
Year	Coal	Other Fossil Fuels	Hydro	Other	Total	Residential	Commercial	Industrial	Other	Total
1980	10,870	421	823	-	12,114	3,293	3,569	3,800	512	11,174
1981	10,869	270	623	-	11,762	3,476	3,909	3,930	530	11,845
1982	10,635	232	1,024	-	11,891	3,630	3,033	4,610	745	12,018
1983	10,921	109	1,394	-	12,424	3,678	3,375	4,786	769	12,608
1984	12,321	38	1,391	38	13,788	3,825	3,935	4,656	950	13,366
1985	14,229	54	1,019	109	15,411	3,996	4,272	4,663	658	13,589
1986	15,155	80	1,413	171	16,819	3,984	4,262	4,583	662	13,491
1987	25,221	105	856	164	26,346	3,991	4,127	4,570	784	13,472
1988	28,806	64	593	174	29,637	4,186	4,356	5,259	765	14,566
1989	29,676	85	562	173	30,496	4,134	4,365	5,622	782	14,902
1990	31,519	103	486	152	32,260	4,188	4,713	5,553	772	15,225
1991	28,884	484	604	186	30,160	4,458	5,009	5,674	722	15,862
1992	31,543	612	580	186	32,921	4,458	5,170	6,085	668	16,381
1993	31,919	575	818	148	33,461	4,687	5,130	6,093	921	16,831
1994	32,764	780	716	195	34,455	5,031	5,561	6,322	945	17,860
1995	30,260	775	926	140	32,101	5,056	5,503	7,018	781	18,358
1996	30,693	324	1,019	192	32,229	5,481	5,911	7,660	860	19,858
1997	32,144	326	1,331	169	33,969	5,660	6,462	7,430	820	20,373
1998	33,207	494	1,299	160	35,161	5,756	6,709	7,511	724	20,700
1999	34,125	544	1,247	156	36,071	6,236	7,282	7,568	792	21,879
2000	34,500	653	800	160	36,110	6,548	7,937	8,098	784	23,367
2001(e)	34,500	653	800	160	36,110	7,019	8,389	7,491	850	23,741

e = estimate

Source: Center for Policy and Planning

State of Utah Energy and Minerals 153

Table 78
Supply and Disposition of Coal in Utah (Thousand Short Tons)

		Su	pply		Consumption by End Use						
	Marketed			Residential &	Coke		Electric				
Year	Production	Production	Imports	Exports	Commercial	Plants	Industrial	Utilities	Total		
1980	13,236	13,014	1,215	6,728	237	1,528	446	4,895	7,106		
1981	13,808	14,627	1,136	8,764	196	1,567	714	4,956	7,432		
1982	16,912	15,397	797	8,261	177	841	822	4,947	6,787		
1983	11,829	12,188	937	6,133	191	839	629	5,223	6,882		
1984	12,259	12,074	1,539	6,432	259	1,386	548	5,712	7,905		
1985	12,831	14,361	1,580	6,549	252	1,288	438	6,325	8,303		
1986	14,269	13,243	1,145	5,366	191	814	351	6,756	8,112		
1987	16,521	16,989	1,165	5,633	123	231	276	11,175	11,806		
1988	18,164	18,244	2,448	5,925	196	1,184	589	12,544	14,513		
1989	20,517	21,289	2,367	7,283	231	1,178	686	12,949	15,044		
1990	22,012	21,680	2,137	7,467	181	1,318	676	13,563	15,738		
1991	21,945	21,673	2,007	7,954	320	1,310	535	12,829	14,834		
1992	21,015	21,339	2,155	8,332	347	1,182	497	13,136	15,162		
1993	21,723	21,935	2,100	8,761	228	1,089	614	13,343	15,274		
1994	24,135	23,441	2,588	10,188	157	1,198	647	13,839	15,841		
1995	25,051	25,443	1,841	12,848	182	1,062	642	12,550	14,436		
1996	27,071	27,816	1,925	15,116	260	1,120	517	12,728	14,625		
1997	26,428	25,407	2,615	11,375	96	1,106	665	14,780	16,647		
1998	26,600	26,974	2,715	13,270	212	1,110	680	14,545	16,547		
1999	26,491	26,180	2,159	12,081	107	728	830	14,593	16,258		
2000	26,920	27,629	2,467	12,632	82	941	634	15,807	17,464		
2001(e)	26,729	26,713	2,716	13,529	92	986	732	14,140	15,950		

e = estimate

Source: F.R. Jahanbani, Center for Policy and Planning

Energy Prices in Utah (Current Dollars)

Field Price

Average End-Use Price

Year	Coal (\$/tons)	Crude Oil (\$/barrel)	Natural Gas (\$/mcf)	Coal (\$/tons)	No. 2 Distillate (\$/gallons)	Motor Fuel (\$/gallons)	Natural Gas Residential (\$/mcf)	Natural Gas Commercial (\$/mcf)	Natural Gas Industrial (\$/mcf)	Electric Power Residential (c/kWh)	Electric Power Commercial (c/kWh)	Electric Power Industrial (c/kWh)	Electric Power Industrial (c/kWh)
1980	25.63	19.79	1.86	29.63	0.91	1.23	2.74	5.59	2.26	5.5	4.3	3.3	4.4
1981	26.87	34.14	1.87	32.79	1.04	1.37	3.23	5.35	2.58	6.0	5.0	3.7	4.9
1982	29.42	30.50	2.47	33.38	1.01	1.35	3.41	3.43	2.45	6.3	5.7	4.2	5.4
1983	28.32	28.12	2.56	30.64	0.96	1.13	4.26	4.32	3.15	6.9	6.3	4.4	5.8
1984	29.20	27.21	3.16	30.64	0.95	1.12	5.68	4.96	3.52	7.4	6.5	4.6	6.2
1985	27.69	23.98	3.23	32.34	0.93	1.14	4.86	4.91	3.23	7.8	6.9	5.0	6.5
1986	27.64	13.33	2.90	32.32	0.78	0.85	4.64	4.73	3.00	8.0	7.1	5.2	6.7
1987	25.67	17.22	1.80	30.95	0.83	0.93	4.97	4.98	3.20	8.0	7.1	4.9	6.6
1988	22.85	14.24	1.70	29.50	0.84	0.96	5.11	4.08	3.10	7.8	7.0	4.6	6.5
1989	22.00	18.63	1.61	28.05	0.94	1.03	5.14	4.16	3.30	7.4	6.7	4.1	6.1
1990	21.78	22.61	1.70	26.80	1.12	1.14	5.28	4.30	3.62	7.1	6.3	3.9	5.7
1991	21.56	19.99	1.54	27.40	1.02	1.10	5.44	4.50	3.69	7.1	6.1	4.0	5.7
1992	21.83	19.39	1.63	27.54	1.01	1.12	5.44	4.40	3.91	7.0	6.0	3.7	5.6
1993	21.17	17.48	1.85	27.34	1.00	1.10	5.13	4.06	3.67	6.9	6.0	3.8	5.5
1994	20.07	16.38	1.53	26.10	0.98	1.12	4.96	3.84	2.74	6.9	5.9	3.8	5.5
1995	19.11	17.71	1.14	25.27	1.00	1.14	4.74	3.64	2.34	6.9	6.0	3.9	5.6
1996	18.50	21.10	1.39	24.50	1.06	1.20	4.47	3.38	2.10	6.9	5.9	3.7	5.5
1997	18.34	18.57	1.85	25.33	1.10	1.25	5.13	3.91	2.55	6.9	5.7	3.5	5.4
1998	17.83	12.53	1.73	25.45	1.05	1.09	5.57	4.34	3.00	6.8	5.7	3.4	5.3
1999	17.36	17.69	1.92	25.15	1.19	1.29	5.37	4.12	2.94	6.2	5.1	3.3	4.9
2000	16.93	28.51	3.28	24.63	1.40	1.50	6.24	4.62	3.20	6.2	5.1	3.3	4.9
2001(e)	17.54	23.50	3.69	31.26	1.25	1.20	7.52	6.09	4.59	6.7	5.5	3.6	5.2

e = estimate

Source: Center for Policy and Planning